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Case Study: Snohomish County, Washington.
(Developed for SWANA E-Waste Training Program)

Background

Local solid waste rules administered by the Snohomish Health District do not provide exceptions to hazardous waste and dangerous waste disposal rules for residential and small business generated materials. Anticipating that at some point in the future, electronic products might be determined to be dangerous wastes, and wanting to increase recovery of electronic products for reuse and recycling, the Snohomish County Solid Waste Management Division began working on electronic waste issues in 1998. Its initial approach was to support the development of product stewardship approaches and it was instrumental in the establishment of the NW Product Stewardship Council and the Western Electronics Product Stewardship Initiative. This in turn resulted in Snohomish County holding one of the fifteen government positions in the NEPSI process, tasked with providing information and concerns from the perspective of local governments.

While NEPSI did not result in an agreement and new system as early as anticipated, CRTs and CPUs were acknowledged as dangerous wastes by the Snohomish Health District in 2002 and the Division was given until the end of 2002 to stop accepting those products for landfilling and to establish reasonable recycling alternatives. The Division went about doing this having benefited from much information from the NEPSI process and lessons learned by other local governments. The result is a uniquely integrated system which may serve as a model for others.

The Program

An E-team was formed of planning, project and operations staff to formulate the program, which was to be consistent with a product stewardship approach and sensitive to regional and national efforts. Staff from other agencies also participated in the E-team efforts and consultants were used to assist in the design and implementation of some program elements.

Original program goals and approaches included:

- Continued support for product stewardship approaches
- Elimination of targeted products in solid waste disposal stream
- Convenient, easy to access services for residents and small businesses
- Use of private sector services to the degree possible
- Back-up of private services with limited public services
- Program to pay for itself
- Promotion of program as “interim” to a better, front-end financed system in the future.
- Developing program that could easily transition to future new front-end financed system.

Factors that went into overall program design.

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There were many factors that went into the overall design of the program. These include the following:

Snohomish County Solid Waste Management Division had been working on a program and policy level supporting the position that e-waste recycling was not well suited to many local government facilities, many governments did not have adequate funds (or ability to increase taxes, rates, and fees to get those funds) and that manufacturers and retailers had a role and responsibility in addressing the issue.

Snohomish County's transfer stations were overcrowded and aging. Two were being closed and replaced by new stations in the future. There was not room or ability to provide collection at these stations. At the time, only one solid waste facility had the space to provide e-waste collection.

Snohomish County's centrally located Moderate Risk Waste Facility was inadequate from providing e-waste collection. The facility was too small, it was more specialized than needed for e-waste, and there was no room to park a trailer to expand storage space.

Even if the County's transfer stations and MRW facility had room to provide service, it was inferior service compared to what the public wanted and would be most responsive to. A local survey showed that citizens wanted to be able to return electronics to local electronic retailers. A goal became to make it as easy to recycle a computer as it is to buy one. At the time of the initial analysis, Snohomish County could only provide e-waste collection at one of its transfer stations, located in the far north of the County, far from the population centers. This was deemed terribly inadequate. However, if the County could encourage collection programs at charities, private recycling centers and big box retail stores, over 50 locations were potentially available in the county, with all population centers well covered. Small retailers and repair shops were not included at the time, but would have added dozens of more possibilities, and have in fact become the backbone of the private partners providing service.

In order to enlist private retailers to provide collection, it was clear that there would have to be a way to cover their costs, and the County did not have the funds to establish such a program. Therefore, the private partners would have to charge end of life fees. However, they would not be able to charge end of life fees if the County established limited drop off at no cost. So the County would have to establish fees for materials collected.

With these factors in mind, the general program design was set:

- wide geographic coverage providing on-going drop-off for convenience of customers
- provided by a diversity of collector types, including retailers
- financed by end of life fees (interim to a new state or national system)
- with end of life fee service provided at the limited public facilities available, as a safety net and backdrop to the mostly private system.

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The next planning effort was to determine what needed to be done to establish the general program outline. This required extensive effort, intensified by the short time line to get a whole new collection system in place before the deadline was passed to stop accepting e-waste for disposal.

Steps related to County policy and station recycling included:

- Working with operation staff to confirm where and how drop-off collection could be offered.
- Determining what materials would be included in the program.
- Calculating expected costs of program and calculated the rates to be charged per material type.
- Writing a rate ordinance and defending it at public hearings prior to County Council adoption.
- Developing a bid document that including high ESM standards and selecting a vendor.
- Establishing policies and procedures for charging customers, tagging material that had been paid for at the scale house, dealing with those caught with material not yet paid for within the transfer station.
- Developing a training manual for operations staff and providing training.
- Revising waste acceptance policy and brochures to address e-waste.
- Revising signage at all facilities regarding e-waste no longer accepted as garbage and directing customers to recycling options.
- On-going program adjustment and improvement.

Additional planning work was required before establishing the private take back program, though much of the effort was simultaneous with setting up the transfer station program outlined above. A consultant team was selected to assist in designing and establishing the program. They researched and cataloged all known possible recyclers/processors able to provide service in the region. A set of ESM standards were established and these businesses were invited to meet with the County and discuss the services they offered and if they could meet the County's standards, and if they were interested in providing service within the County. The County then developed an agreement form for recyclers/processors to sign. Only businesses willing to sign the agreement were to be promoted in the County's new program.

A program name and image was developed: The Take it Back Network. Consultants developed a mailing and contact list of businesses in the county most likely to generate significant e-waste, such as electronic retailers, repair shops, etc. A series of mailings were sent to these businesses informing them:

- they could not continue to dispose of e-waste as garbage
- that a list of vendors that could recycle their e-waste was included and these businesses had agreed to be part of the new local Take it Back Network and meet high ESM standards
- that residents would no longer be able to dispose of e-waste as garbage

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- that we were working with local stores to establish collection services which they would charge a fee for providing
- benefits of providing such service
- what kind of support we would provide them

Mailings were followed by phone calls to the most promising prospects.

A follow-up mailing invited businesses to a question and answer breakfast meeting where they could also meet the various vendors offering recycling services, either for their own material or material they collected from others. Sixty-five businesses attended the meeting. Continuous follow-up resulted in launching the program in late 2002 with four small private retailers accepting materials for recycling. The private Take it Back Network Partners determine what materials they will accept and set their own fees. Other than signing agreement forms with the County and reporting amounts collected, all of their transactions are private.

Other aspects of the private Take it Back Network include:

- Developing and providing easy to follow operation manuals/plans. These were developed in conjunction with the Health District so that no additional permits were required.
- Extensive advertising.
- Developing and providing easy reporting forms, and having secretarial staff call periodically to collect the data.
- Developing and providing store signage and banners
- Providing “no illegal dumping” signage for outside use, and non-functional surveillance cameras
- Providing spill kits and instructions
- Providing on-going technical assistance as needed.

In addition, all program materials include information on product stewardship and list manufacturer mail back programs. The County has also worked with others to provide occasional collection events and is currently working to establish pilot programs with national retailers and manufacturers. A website and extensive advertising campaign promote all the options available to e-waste generators.

As well as these programs, Snohomish County provided a one-time clean out of obsolete electronic products from city governments and school districts. As part of the program, cities and school districts were introduced to responsible vendors, and were asked to establish future budgets for e-waste recycling and to revise procurement and computer donation acceptance policies to minimize the problem in the future. Over 298,000 pounds (347 pallets, 149 tons) of televisions, computer monitors, computers, and peripherals were collected between December 9 – 20, 2002, from 18 Snohomish County public school districts and cities. The agencies were not charged for this one-time clean-out event that cost \$69,360. Program costs were provided through a grant from the Washington Department of Ecology and from Snohomish County Solid Waste Account

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funds (funded by solid waste tip fees). School districts accounted for 136 tons of the material collected. Per student, this was 3.187 lbs.

The Take it Back Network program concept is being adopted by additional areas in Washington and Oregon. Negotiations are in process for expanding the role of national retailers and manufacturers in the program.

All of Snohomish County's program materials are available for adaptation and use by other public sector programs. Most materials can be found on the Take it Back Network website at <http://www.co.snohomish.wa.us/publicwk/solidwaste/programs/takeitback/>.

Snohomish County, Washington

Collection Method

- On-going drop-off

Collection-site

- Public Transfer Stations (SWMD)
- Private Retailers (Take it Back Network)

Amount Collected

- 350 + tons/year total
- By tons, 35% via private retailers
- By units, 48% via private retailers
- Transfer stations collect vast majority of televisions, retailers collect majority of CRTs and CPUs.

Participants

- Available to any entity.
- Transfer station program limited to 3 of any type item per load, to limit capacity impact by businesses
- All are directed to private services first

Program Operator

- County manages own program and facilitates Take it Back Network.
- Private business make own arrangements for transport/recycling

Materials Accepted

- Computer monitors
- Computer hardware
- Computer Peripherals
- Televisions (not at all participating retailers)
- Other peripherals such as DVD players, stereos, VCRs
- Cell phones, PDAs

Initial Funding Sources

- Solid Waste Account (tip fees) and State Grant

Demographics

2001 Total Population:	623,000
2000 Total Households:	224,852
2000 Average Household Size:	2.65
1999 Median Household Income:	\$53,060

Frequency

- Transfer Stations – 7 days a week, 3 sites
- Private Retailers – business hours, 14 sites

Program Age

- Began November 2002.
- 2nd transfer station added March '03
- 3rd transfer station added Sept. '03
- Steady growth from 4 to currently 14 private retailer sites

Transporter

- Electronics recycler for Transfer Station Program
- Private retailers make own arrangements

Program Funding Sources

- Fees charged users currently capture 90% of vendor costs for transfer station program. Goal is to have fees pay 100% of all costs.
- Fees, income, increased sales and "cost of

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Set-up Costs for Local Government

- Transfer Station Program = \$7,500 plus substantial staffing costs
- Take it Back Network = \$49,000 plus staffing
- TIBN covered costs that otherwise would have been incurred by transfer station program

Fees Charged

- computers, laptops = \$10
- monitors = \$14
- standard televisions = \$20
- console and big tvs, separated CRTs = \$27
- other desktop peripherals = \$10
- small peripherals, cell phones, PDAs – no charge
- Private Retail Participants set own fees which may be higher or lower, depending on the item

doing business” cover private retailer costs. Solid Waste funds pay for coordination and promotion.

Annual Operating Costs

- Transfer Station Program = \$150,000 vendor costs plus facility, staffing, promotion and other overhead costs (est. \$35,000).
- Take it Back Network = \$15,000 plus staffing is cost to Snohomish County. Other costs incurred by partners.

Price Paid to Recycle

- TVs and Monitors = \$.27 lb.
- CPUs, peripherals = \$.25 lb.
- Private Retail Participants make own business arrangements